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60469-242; OT-5132SWO

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Monzon Art Unit: 3652  
Serial No.: 10/561,557 Examiner: Pico, Eric E.  
Filed: 12/19/2005  
Title: COMPACT BEDPLATE WITH INTEGRATED,  
ACCESSIBLE DEAD END HITCHES

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**APPEAL BRIEF**

Dear Sir:

In response to the Notice of Non-Compliant Appeal Brief mailed October 3, 2007, Appellant now resubmits its Brief. Appeal fees have been paid. If any additional fees are necessary, you are hereby authorized to charge deposit account number 50-1482 in the name of Carlson, Gaskey & Olds.

**Real Party in Interest**

The real party in interest in this application is Otis Elevator Company, the assignee of the entire right of the application.

**Related Appeals and Interferences**

There are no prior or pending appeals, interferences or judicial proceedings relating to this appeal, or which may directly effect or be directly effected by, or have a bearing on, the Board's decision in this appeal.

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**Status of Claims**

Claims 1-20 are pending, finally rejected, and are appealed.

**Status of Amendments**

There were no amendments after final rejection in this application.

**Summary of the Claimed Subject Matter****Independent Claim 1**

Independent claim 1 requires an elevator car 22 that is movable along car guide rails 42. A counterweight 28 is movable along counterweight guide rails 43. A bedplate 26 is supported by at least one of the car and counterweight guide rails. A machine (motor) 24 is supported by the bedplate and drives a tension member 36 interconnecting the counterweight and the car. Opposed ends of the tension member are connected at dead end hitches 38A, B, C, and 40A, B, C. The bedplate has a vertically lowermost surface, and the dead end hitches extend above the vertically lowermost surface. The dead end hitches associated with each of the opposed end of the tension members are received on the bedplate such that they will be between the car and a single wall when the elevator is mounted in an elevator shaft. See page 2, line 29-page 3, line 30; Figures 1-3.

**Independent Claim 11**

Independent claim 11 requires an elevator car 22 that is movable along car guide rails 42. A counterweight 28 is movable along counterweight guide rails 43. A bedplate 26 is supported by at least one of the car and counterweight guide rails. A machine (motor) 24 is supported by the bedplate and drives a tension member 36 interconnecting the counterweight and the car. Opposed ends of the tension member are connected at dead end hitches 38A, B, C, and 40A, B, C. The bedplate has a vertically lowermost surface, and the dead end hitches extend above the vertically lowermost surface. The dead end hitches associated with each of the opposed end of the tension members are received on the bedplate such that they will be between the car and a single wall when the elevator is mounted in an elevator shaft. See page 2, line 29-page 3, line 30; Figures 1-3.

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**Independent Claim 16**

Independent claim 16 requires an elevator car 22 that is movable along car guide rails 42. A counterweight 28 is movable along counterweight guide rails 43. A bedplate 26 is supported by at least one of the car and counterweight guide rails. A machine (motor) 24 is supported by the bedplate and drives a tension member 36 interconnecting the counterweight and the car. Opposed ends of the tension member are connected at dead end hitches 38A, B, C, and 40A, B, C. The bedplate has a vertically lowermost surface, and the dead end hitches extend above the vertically lowermost surface. The dead end hitches associated with each of the opposed end of the tension members are received on the bedplate such that they will be between the car and a single wall when the elevator is mounted in an elevator shaft. See page 2, line 29-page 3, line 30; Figures 1-3.

**Grounds of Rejection to be Reviewed on Appeal**

1. The 35 U.S.C. §103 rejection of claims 1, 2, and 4-20 as having been obvious over Nakagaki, et al. U.S. Published Patent Application No. 2002/0070080 ("Nakagaki") taken with the Orrman, et al. U.S. Published Patent Application No. 2002/017434 ("Orrman") is appealed.
2. Further, the rejection of claim 3 under 35 U.S.C. §103, over Nakagaki taken with Orrman, and further in view of Ando U.S. Patent 6,435,316.

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**Arguments**

1. The Combination of Nakagaki and Orrman is Improper and Still Would Not Meet the Claims.

The claims require that the dead end hitches be on the bedplate, but above the vertically lowermost surface of the bedplate. As disclosed, this makes the dead end hitches more accessible.

The Nakagaki reference discloses one dead end hitch 57 mounted on the far side of the car 20 from the bedplate. The other dead end hitch 53 is mounted above the vertically lowermost surface of the bedplate. This is a particular type of elevator drive arrangement, wherein the tension member extends underneath the car, and to an opposed wall where the dead end hitch 57 is made. This arrangement does not meet the claims, in that the claims require both dead end hitches be on the bedplate.

Thus, the Examiner reaches for the Orrman patent. Orrman does disclose dead end hitches on one side of a car, and mounted to a bedplate. In Orrman, the sheave 6 and the machine 8 rotate about an axis extending into a wall of an elevator car. In contrast, Nakagaki discloses a system wherein the rotational axis of the machine and the sheaves would be parallel to an outer wall of the elevator car.

The Examiner proposes to modify Nakagaki with Orrman such that the dead end hitches are on the same side of the car.

First, if the dead end hitches of Orrman are utilized, the dead end hitches are no longer above the vertically lowermost surface of the bedplate. Orrman's dead end hitches are on the bottom of the bedplate. The dead end hitch 57 of Nakagaki, in particular, is completely not associated with the bedplate, and would suggest no location for a dead end hitch on the bedplate, and certainly not one above the vertically lowermost surface of the bedplate. Thus, even if some combination were proper, it would not meet the claims.

Moreover, there is no reason to make this combination.

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Nakagaki has a completely distinct method of driving its car. The Orrman device is completely unrelated to the type of arrangement wherein a tension member extends underneath the car. While it is certainly true that elevator systems are known wherein both dead end hitches are attached to the bedplate, as in Orrman, they have not been utilized with dead end hitches mounted above a vertically lowermost surface of the bedplate. Simply, the Examiner is proposing the combination of these references based on hindsight alone. Moreover, even if the combination were proper, it would not meet the claims.

2. The Rejection of Claim 3 is Also Improper

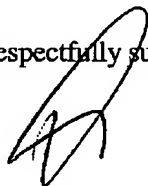
Claim 3 requires that the dead end hitch be above a vertically uppermost surface of the bedplate, that is, on top of the bedplate. In Nakagaki, the dead end hitch 57 is within the vertical extent of the bedplate. Thus, the Examiner now points to Ando.

It is noted that Ando does nothing to overcome the deficiencies in the base reference, and thus the rejection of claim 3 is improper at least for the reasons set forth above.

**CLOSING**

For the reasons set forth above, the rejection of all claims is improper and should be reversed. Such action is solicited.

Respectfully submitted,



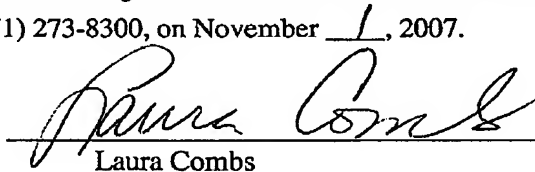
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Dated: November 1, 2007

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CERTIFICATE OF TRANSMISSION UNDER 37 CFR 1.8

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office, fax number (571) 273-8300, on November 1, 2007.

  
Laura Combs

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**CLAIMS APPENDIX**

1. An elevator comprising:  
an elevator car movable along car guide rails;  
a counterweight movable along counterweight guide rails;  
a bedplate supported by at least one of said car and counterweight guide rails; and  
a machine supported by said bedplate and driving a tension member interconnecting said counterweight and said car, opposed ends of said tension member being connected at dead end hitches, said bedplate having a vertically lowermost surface, and said dead end hitches extending above said vertically lowermost surface, said dead end hitches associated with each of said opposed ends of said tension members being received on said bedplate and such that they will be between said car and a single wall when the elevator is mounted within an elevator shaft.
2. The elevator as set forth in Claim 1, wherein said dead end hitches are mounted on said bedplate.
3. The elevator as set forth in Claim 2, wherein said bedplate is formed by at least one beam, and said dead end hitches are supported by a vertically uppermost portion of said beam.
4. The elevator as set forth in Claim 2, wherein said bedplate is formed by a pair of C-shaped beams each having an internal space and at least one of said dead end hitches is positioned within said internal space.
5. The elevator as set forth in Claim 1, wherein said bedplate is supported by both of said car and counterweight guide rails.
6. The elevator as set forth in Claim 1, wherein there are a plurality of said tension members and two sets of a corresponding plurality of dead end hitches, said dead end hitches of each of the two sets being aligned in an array that is generally parallel to a rotational axis of said machine.

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7. The elevator as set forth in Claim 6, wherein each of said sets of dead end hitches is disposed on opposed lateral sides of said rotational axis of said machine.

8. The elevator as set forth in Claim 6, wherein said machine comprises a traction sheave having a plurality of sheave surfaces for engaging and driving the plurality of tension members, and said dead end hitches are disposed within an axial distance defined by ends of the traction sheave.

9. The elevator as set forth in Claim 8, wherein each of said sheave surfaces is aligned with a respective one of said dead end hitches in each of said sets of dead end hitches such that a line drawn through one of the sheave surfaces and its two associated dead end hitches is perpendicular to said rotational axis.

10. The elevator as set forth in Claim 1, wherein said machine comprises a traction sheave having a plurality of sheave surfaces for engaging and driving a plurality of said tension members, the opposed ends of each of said tension members being connected at a pair of the dead end hitches, wherein each of said sheave surfaces is aligned with a respective pair of the dead end hitches such that a line drawn through one of the sheave surfaces and its two associated dead end hitches is perpendicular to a rotational axis of the traction sheave.

11. An elevator comprising:  
an elevator car movable along car guide rails;  
a counterweight movable along counterweight guide rails;  
a bedplate supported by at least one of said car and counterweight guide rails; and  
a machine supported by the bedplate and driving a plurality of tension members interconnecting said counterweight to said car, opposed ends of said tension members being connected at dead end hitches, there being two sets of aligned dead end hitches, each set of dead



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end hitches being supported by the bedplate in an array that is generally parallel to a rotational axis of said machine, said dead end hitches associated with each of said opposed ends of said tension members being received on said bedplate and such that they will be between said car and a single wall when the elevator is mounted within an elevator shaft.

12. The elevator as set forth in Claim 11, wherein each of said sets of dead end hitches is disposed on opposed lateral sides of said rotational axis of said machine.

13. The elevator as set forth in Claim 11, wherein said machine comprises a traction sheave having a plurality of sheave surfaces for engaging and driving the plurality of tension members, and said dead end hitches are disposed within an axial distance defined by ends of the traction sheave.

14. The elevator as set forth in Claim 13, wherein each of said sheave surfaces is aligned with a respective one of said dead end hitch in each of said sets of dead end hitches such that a line drawn through one of the sheave surfaces and its two associated dead end hitches is perpendicular to said rotational axis.

15. The elevator according to claim 11, wherein the bedplate is supported by both of the car and counterweight guide rails.

16. An elevator comprising:  
an elevator car movable along car guide rails;  
a counterweight movable along counterweight guide rails;  
a bedplate supported by at least one of said car and counterweight guide rails; and  
a machine supported by the bedplate and comprising a traction sheave for engaging and driving a plurality of tension members interconnecting said counterweight to said car, opposed ends of said tension members being connected via dead end hitches to said bedplate,

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the traction sheave having a plurality of sheave surfaces corresponding to the plurality of tension members, wherein each of said sheave surfaces is axially aligned with a respective pair of the dead end hitches such that a line drawn through one of the sheave surfaces and its two associated dead end hitches is perpendicular to a rotational axis of the traction sheave, said dead end hitches associated with each of said opposed ends of said tension member being received on said bedplate and such that they will be between said car and a single wall when the elevator is mounted within an elevator shaft.

17. The elevator according to claim 16, wherein the bedplate is supported by both of the car and counterweight guide rails.

18. The elevator as set forth in claim 8, wherein a dead end hitch associated with one of said opposed ends of said tension members being on a first side of a rotational axis of said traction sheave, and a dead end hitch associated with the other of said opposed ends of the tension members being on an opposed side of the rotational axis of the traction sheave.

19. The elevator as set forth in claim 13, wherein a dead end hitch associated with one of said opposed ends of said tension members being on a first side of a rotational axis of said traction sheave, and a dead end hitch associated with the other of said opposed ends of the tension members being on an opposed side of the rotational axis of the traction sheave.

20. The elevator as set forth in claim 16, wherein a dead end hitch associated with one of said opposed ends of said tension members being on a first side of a rotational axis of said traction sheave, and a dead end hitch associated with the other of said opposed ends of the tension members being on an opposed side of the rotational axis of the traction sheave.

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**EVIDENCE APPENDIX**

None.

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**RELATED PROCEEDINGS APPENDIX**

None.